

REMARKS

In the Official Action mailed on **9 February 2006**, the Examiner reviewed claims 1-44. Claims 34-44 were rejected under 35 U.S.C. §101 because the claimed invention was directed to non-statutory subject matter. Claims 1-44 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kindberg et al (*A Web-Based Nomadic Computing System*, hereinafter "Kindberg") in further view of UPnP Forum (*UPnP Device Architecture*, hereinafter "UPnP"), and further in view of Waldo ("The JINI Architecture for Network-Centric Computing" hereinafter "Waldo").

Rejections under 35 U.S.C. §103(a)

Claims 34-44 were rejected under 35 U.S.C. §101 because the claimed invention was directed to non-statutory subject matter. Applicant has cancelled claims 34-44 without prejudice.

Rejections under 35 U.S.C. §103(a)

Independent claims 1, 12, and 23, were rejected as being unpatentable over Kindberg in further view of UPnP, and in further view of Waldo. Applicant acknowledges that UPnP teaches seamless, zero-configuration networking for a breadth of devices. With UPnP, each device has to already support a common protocol with other devices that the device wishes to communicate with. As previously discussed, UPnP teaches the use of textual interface descriptions to facilitate initialization as well as discovery of common communication protocols among the devices.

Applicant also acknowledges that Waldo discloses a universal interface comprising both executable code and data. However, Applicant respectfully points out that Waldo teaches exchanging code between two devices that are both running Java, and have a clearly established communication session. Applicant

was aware of the Jini™ architecture at the time the present application was filed, and the Jini™ architecture was incorporated by reference in paragraph [0004].

In addition, Waldo teaches the sharing of Java code to allow a second client to replicate the functionality of a first client via code mobility.

In contrast to the cited prior art, the present invention facilitates establishing a connection between two devices in situations where the two devices do not share a common programming language, communication protocol, or an established communication session. For example, the first client can be a printer operating in a UNIX environment and using a line-based communication medium, and the second client can be a computer using the Microsoft Windows operating environment, using a line-based communication medium, and a different communication protocol than that of the first client.

Applicant agrees that the sharing of code in an environment where the first component and the second component have both an established communication channel and a common computing environment is obvious. However, in the case where the first and second clients do not have an established communication channel, and do not have a common computing environment, such a solution is not practical. Furthermore, such a connection is not apparent in any combination of the teachings of Kindberg, UPnP, and Waldo. A solution such as this would require that every device have a common computing environment that is both platform-independent and supportive of mobile code. While Java could possibly fill this role, it would be both expensive and impractical to implement Java, or another computing environment, on every device that you wish to communicate with. In addition, many of these devices, such as printers, typically do not have the resources to run Java, or another computing environment, in addition to their normal processes. Furthermore, this would imply that every device would be required to implement the same computing environment in order to ensure compatibility with all other devices. In this case, it might be easier for device

designers and manufacturers to simply implement more communication mediums and communication protocols, thus defeating the purpose of the present invention.

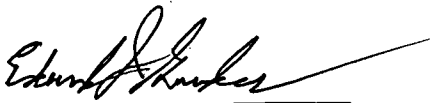
Accordingly, Applicant has amended independent claims 1, 12, and 23, to clarify that the present invention enables communication between two devices that do not share a common communication protocol. These amendments find support in paragraph [0022], [0032], and [0051] of the instant application.

Hence, Applicant respectfully submits that independent claims 1, 12, and 23, as presently amended are in condition for allowance. Applicant also submits that claims 2-11, which depend upon claim 1, claims 13-22, which depend upon claim 12, and claims 24-33, which depend upon claim 23, are for the same reasons in condition for allowance and for reasons of the unique combinations recited in such claims.

CONCLUSION

It is submitted that the present application is presently in form for allowance. Such action is respectfully requested.

Respectfully submitted,

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